



Platone PLATform for Operation of distribution NEtworks

D3.1 v1.0

Internal Operational Plan and WP3 Roadmap

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Author(s): Ercole De Luca; Gabriele Fedele

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Abstract

The Italian Demo will develop, implement and test a fully functional system, enabling distributed resources connected in medium and low voltage grids to provide grid services in different flexibility market models, which will be developed and implemented, allowing the inclusion of all the stakeholders: TSO, DSO, aggregators and end-users.

The complexity of the technical and technological activities planned for implementing the solution, requires from the first stage of the project to set up a structured operational plan. The partners will internally use this as a roadmap for leading and carrying out all the WP3 operating steps.

In order to face that need, the present document - "Internal Operational Plan and WP3 roadmap" has been elaborated with the aim to report operating directions and strategies shared among the WP3 partners and the WP3 staff, concerning the implementation of the WP3 tasks during the entire duration of the project.

According to its purpose, the document is intended to plan the coordination, monitoring and evaluation strategy to be put in place within WP3, as well as the respective roles and responsibilities of each partner involved and its team. A coordinated modus operandi for planning the WP3 customer-engagement and communication strategies is also defined.

The document will be the official base for starting-up a proper coordination of the Italian Demo, checking and evaluating the progress of the activities according to the timeline and the planning drawn-up. It will be circulated among the WP3 project staff, in order to ensure proper coordination and information about the objectives of the Italian Demo and the Platone project.

The Internal Operating Plan will be used by the WP3 partnership as a support document to be eventually updated in order to follow the implementation phases.

Keyword list

Local flexibility; Blockchain technology; Customer-involvement; DSO; TSO; Aggregators; Prosumers.

Disclaimer

All information provided reflects the status of the Platone project at the time of writing and may be subject to change.

Executive Summary

The present document "Internal Operational Plan and WP3 roadmap" is the first deliverable released within the "WP3 – Italian Demo" under the coordination of areti.

The Italian Demo is one of the three highly ambitious pilots which will be implemented within the Platone project, involving 7 out of 12 partners of the entire partnership: areti, Acea Energia, Apio, Siemens, RWTH Aachen University, Engineering and BAUM.

Within WP3, a fully functional system, enabling distributed resources connected at medium and low voltage levels to provide grid services in different flexibility market models, will be developed and implemented, allowing the inclusion of all the stakeholders: TSO, DSO, aggregators and end-users.

Specifically, the Italian Demo is aimed at achieving the following expected results:

- the development of an efficient, democratic and non-discriminatory market model for exploitation of local flexibility by using the Blockchain technology;
- concurrency and global efficiency of the energy sector fostered, by breaking down the barriers to the flexibility market;
- the direct involvement of consumers by using a Blockchain infrastructure;
- the enhancement of the grid resilience by using local flexibility;
- Increasing of grid observability of improved network management.

The complexity of the technical and technological activities planned for achieving the above-mentioned expected results, over a total period of implementation of 46 months, requires from the first stage of the project to set-up a structured operational plan, which can be internally used by the partners as a roadmap for leading and carrying out all the operating steps for releasing the System by month 18 (in a first version) and then realizing implementation, testing and analysis activities.

WP3 project activities have already started from Month 3 of the project (November 2019), as coordination and planning activities needed for the WP3 start-up, specifically with reference to the implementation of:

- core technical tasks;
- coordination, monitoring and evaluation tasks;
- customer-engagement tasks;
- communication, exploitation and dissemination.

This document is the Report of the directions and strategies shared among the WP3 partners and project staff from the first phase of the WP3 implementation, concerning the activities to be carried out during the entire project lifecycle.

The document will be the official base for starting-up a proper coordination of the Italian Demo, checking and evaluating the progress of the activities according to the timeline and the planning drawn-up. It will be constantly updated and revised during the entire implementation of the project.

Objectives of the document:

- Making the project consortium, with special focus on the partners involved in the Greek and German Demos, properly informed about the Italian Pilot's aims and purposes, as well as about the technical solution to be developed and implemented within WP3;
- Ensuring fully coordination and shared knowledge among the WP3 partners with respect
 to the scientific aims of the solution to be developed, operating steps, respective roles
 and ownerships;
- Structuring the WP3 team, identifying key-resources and accountable persons for each partner involved;
- Defining the coordination, monitoring and evaluation modus operandi;

 Defining the customer-engagement strategy, with special focus on the dedicated activities to be put in place during the first 18/20 months of the project (to be updated subsequently);

- Defining the communication and dissemination strategy (first definition of methodologies, communication channels and target groups, to be constantly updated during the next steps of the project);
- Sharing indications about ethical issues concerning the project and IPR-related aspects regarding WP3.

The present document will be shared among all the WP3 staff members who will be involved in project activities, in order to allow proper knowledge of the project and the Italian Pilot, coordinated methodologies to disseminate results, confidentiality rules etc.

Authors

Partner	Name	e-mail
<i>a</i> reti		
	Ercole De Luca	Ercole.DeLuca@areti.it
	Gabriele Fedele	Gabriele.Fedele@areti.it
Acea Energia		
	Francesco Sorrentino	francesco.sorrentino@aceaenergia.it
Apio		
	Alessandro Chelli	alessandrochelli@apio.cc
B.A.U.M.		
	Ludwig Karg	I.karg@baumgroup.de
Siemens		
	Carlo Adriano Arrigoni	carlo.arrigoni@siemens.com
Reviewers		
Engineering		
	Ferdinando Bosco	Ferdinando.Bosco@eng.it
RWTH		
	Padraic McKeever	pmckeever@eonerc.rwth-aachen.de

Table of Contents

1.	Introduction	7
2.	WP3 Overview	8
	2.1 The Italian Demo within the Platone project	8
	2.2 WP3 objectives and structure	9
	2.3 Partners' roles and activities	10
	2.4 The Italian Demo target area and the selection of use cases	12
	2.5 The WP3 System and the innovations provided	14
	2.5.1 Energy Market Innovations	14
	2.5.2 Technological Innovations	16
	2.5.3 Subsystems development ownerships	18
	2.6 Timeline, deliverables and milestones	19
3.	WP3 Team	20
	3.1 The main project staff for WP 3	20
4.	Action Plan	21
	4.1 Input-output tasks dependencies related to WP3	21
	4.2 Action Plan for the first release of technology	22
5.	Coordination, evaluation and monitoring	25
6.	Customer-engagement strategy	27
	6.1 Customer-engagement and awareness-raising workshops	27
7.	Communication, exploitation and dissemination strategy	30
8.	Ethical issues	31
9.	List of Tables	32
10	List of Figures	33

1. Introduction

The *Internal Operational Plan and WP3 roadmap*, as first deliverable of WP3, has been prepared with the general scope to plan, track and trace all the Italian Demo activities, related deliverables to be produced, the interaction of the WP3 with other project WPs, and to distribute the ownerships of the different activities. Specifically, the present document highlights the implementation strategies defined for carrying out WP3 tasks, as a result of the start-up phase of the Italian Demo already realized within Task 3.1 *WP coordination, central and field Demo management*.

According to its objectives, the Internal Operational Plan and WP3 roadmap deals with the following project related aspects:

- WP3 Overview. This overview has been elaborated in order to ensure WP3 staff awareness of the Italian Demo objectives, structure, related technical aspects, the specific timeline, deliverables and milestones;
- WP3 Team. This section presents the main WP3 staff, from all the partners involved, that
 will be in charge for the proper implementation of the activities specifying respective roles
 and responsibilities;
- WP3 Action Plan. This section illustrates the operating steps defined by WP3 partnership
 for the effective implementation of the specific tasks of the Italian Demo and their
 dependencies with the other WPs of the project;
- Coordination, evaluation and monitoring. This section represents the coordination, evaluation and monitoring strategies planned for ensuring proper management of financial and administrative issues, effective and efficient implementation of the activities according to the defined timeline and sharing of scientific directions from the first phase of the project;
- Customer-engagement strategy. This section offers an overview of the target users to which dedicated customer-engagement activities, within WP3, will be addressed. A planning of the customer-engagement and awareness raising workshops to be held during the implementation of the Italian Demo is defined as well;
- Communication, exploitation and dissemination strategy. This section aims to
 provide WP3 staff with indications about the strategy drawn-up at the project level, to be
 followed for carrying out the WP3 related communication and dissemination activities,
 ensuring a coordinated image of the project with key stakeholders and the community;
- **Ethical issues.** This section aims to provide the WP3 partners and related staff members with proper indications about the reference rules stated for Ethics and security issues in Chapter 5 of the project attached to the Grant Agreement.

2. WP3 Overview

2.1 The Italian Demo within the Platone project

The Platone project will develop of a two-layer platform for distribution network operation and market operation, creating a seamless integration of local prosumers in an open market structure. Edge cloud technology supported by Blockchain mechanisms will provide easy and secure access to customer level data for operation and flexibility markets.

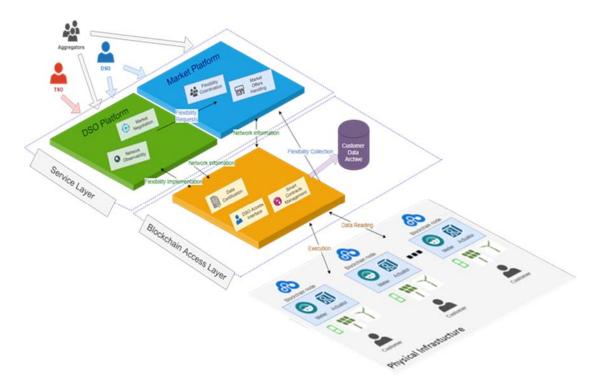


Figure 1: Framework Architecture: the two-layer platform

According to the overall project's objectives and approach, the WP3 is aimed at **implementing a** fully functional system that enables distributed resources connected at medium and low voltage levels to provide grid services in different flexibility market models, able to <u>include</u> all the stakeholders (TSOs, DSOs, aggregators and end-users), by performing an Italian Demo.

The Italian Demo will implement a comprehensive flexibility market in an urban area, in which potentially both TSO and DSO participate, through a customer access / metering infrastructure based on Blockchain in conjunction with an innovative DMS for enhanced grid management, with the aim of **breaking down the barriers to the flexibility market** and allowing the participation of residential customers connected to the Low Voltage grid.

This approach enables the active participation of *prosumers* connected to the distribution network to the optimized management of the grid.

Within this context, the Italian DSO areti is responsible for coordinating the Demo and ensuring the effective implementation and scientific value of the activities; to secure the development, execution, test and implementation of the System released by the WP3 partnership.

The WP3 partnership is represented here below:



Figure 2: The WP3 Partnership

2.2 WP3 objectives and structure

The Italian pilot will implement a **COMPLETE** "END TO END FLEXIBLE" ENVIRONMENT, i.e. a real integrated market where, applying highly innovative distribution network technologies like Blockchain and new grid equipment, to allow both retail and business customers to interact with aggregators (to access new flexibility market options) and the DSO to become an active player in the "network optimized management", in an effective and efficient Active Distribution Network.

The WP3 specific objectives are:

- Promoting an efficient, democratic and non-discriminatory market model for exploitation of local flexibility, by using the Blockchain technology;
- Breaking down the barriers to flexibility market to foster concurrency and global efficiency of the energy sector;
- Contributing to enhance the grid resilience by using local flexibility;
- Providing the LV Customers with all the tools needed to enable a massive participation to the flexibility market;
- Increasing the grid observability and intelligence to improve the network performance.

In order to reach those objectives and related expected results, WP3 is structured in five tasks, as follows:

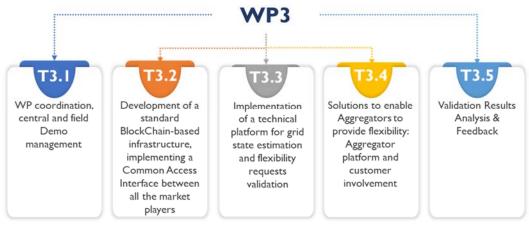


Figure 3: Breakdown of the WP3 Work Structure

2.3 Partners' roles and activities

Within the WP3 partnership, specific roles and responsibilities for each task are distributed as follows:

	Areti	Siemens	RWTH	Apio	ENG	Acea Energia	BAUM
T3.1	9		***				
T3.2	9			***			
T3.3	ŤŤŤ	9					
T3.4	8	†††			†††	†††	ŤŤŤ
T3.5	9	†††	†††	†††		†††	***



Figure 4: WP3 partners' roles

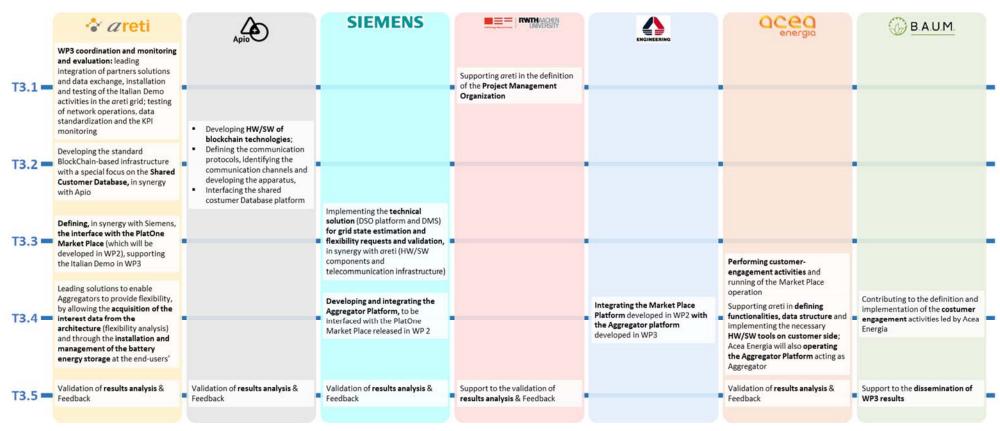


Figure 5: Partners' responsibilities within WP3

2.4 The Italian Demo target area and the selection of use cases

The Italian Demo will take place in Rome, Italy's Capital and the most populous municipality in Italy with 2,849,032 inhabitants. With an area of 1,285 km², the Eternal City has an extension equal to the sum of six of the major European capitals and its territory is superior in extension to that of municipalities like New York and Moscow.

It is also the largest coastal municipality in Europe, with about 20 km of coastline. Making a comparison between the Italian municipalities, Rome governs an area that by size is as large, roughly, as the sum of the territories of the nine largest cities of Italy: Milan, Naples, Turin, Palermo, Genoa, Bologna, Florence, Bari and Catania.

Rome is an ever-expanding nucleus towards which a plurality of systems tends to converge, which undoubtedly serves as a center of concentration, a catalyst for businesses and people, traffic and knowledge, planning, resources and investments. In the last years, Rome has strengthened its national economic weight. With a Gross Domestic Product of € 94 billion, the city produces 6.7% of the national Gross Domestic Product after Milan which provides 10%, and its unemployment rate, lowered from 11.1% to 6.5% between 2001 and 2005, is now one of the lowest rates of all the European Union capital cities. Rome is growing by +4.4% annually and continues to grow at a higher rate in comparison to any other city in the rest of the country.

The Italian DSO areti manages the electricity distribution network in Rome and the surrounding city of Formello, extended for about 29,000 km and capable to feed around 2.7 million resident inhabitants with around 1.7 million customers connected. In terms of the volume of electricity distributed, at about 11,000 GWh / year, the company is the third largest Italian operator in the sector.

The table below reports on main plant data, concerning the primary and secondary substations and the lines of aerial and underground distribution.

areti				
Plants and powers	u. m.	2014	2015	2016
Primary substations HV/HV – HV/MV	n.	70	71	71
Transformers HV/HV and HV/MV	n.	168	169	170
Power Transformation	MVA	7.903	7.764	7.924
Secondary Substations in function	n.	13.113	13.124	13.152
Transformers MV/MV - MV/LV	n.	12.799	12.797	12.831
Power Transformation	MVA	6.118	6.154	6.183
Air and underground lines				
High Voltage Network – overhead lines	km	323	323	321
High Voltage Network – underground lines	km	238	239	243
Medium Voltage Network – underground lines	km	458	440	429
Medium Voltage Network – underground lines	km	10.050	10.086	10.180
Low Voltage Network – overhead lines	km	1.658	1.648	1.646
Low Voltage Network – underground lines	km	17.585	17.723	17.917

Acea Sustainability Balance 2016

Table 1: Physical Indicators: Plants and Overhead and Underground Distribution Lines (2014-2016)

The management of the electricity distribution network is based on a continuous improvement of the performance, also in terms of energy efficiency. In fact, numerous initiatives for reduction of losses have been implemented, from the installation of low-loss transformers to the progressive replacement of medium voltage levels from 8.4 kV to 20 kV.

The Smart-network Management System project is one of those initiatives, improving network performance through evolution and the integration of management systems, as well as other activities carried out in the field of smart grid and, in general, the application of technological innovation in the management of the network. Also due to the activities mentioned, the energy

losses in the network, mainly due to the heating of the conductors for the Joule effect, are equal to about 6.5% of the total conveyed.

Within this context, the Italian Demo will be implemented and tested in different scenarios (use cases) in the target area, involving both commercial and residential prosumers.

The final identification of the specific size and location of the use cases will secure the response to the following requirements:

- Representativeness of the sample of users to be involved in the testing activities;
- Coverage of different types of actors connected to the distribution network;
- Involvement of different types of bodies and entities;
- Coverage of different types of enabling devices (eMobility, building automation, RES);
- Geographical distribution;
- Coverage of different areas of the territory related to the DSO.

2.5 The WP3 System and the innovations provided

2.5.1 Energy Market Innovations

The Energy Market Innovations are represented in the following figure:

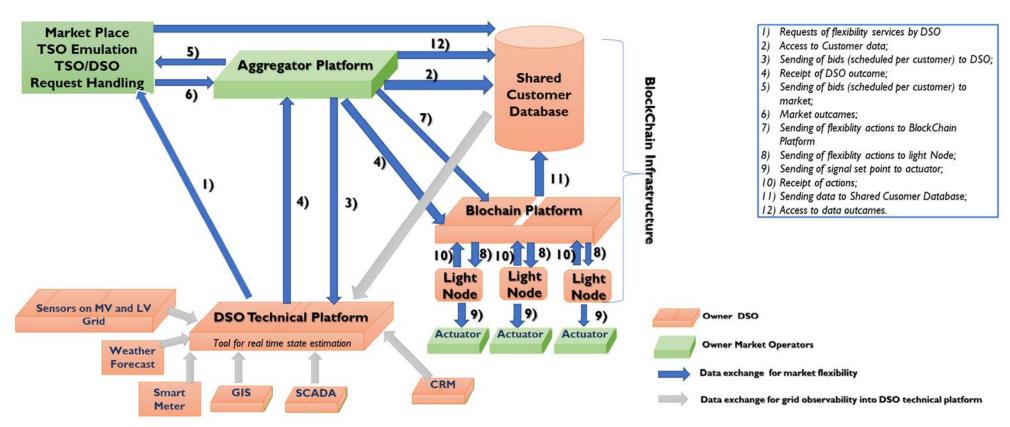


Figure 6 The WP3 solution from the market innovation point of view

 Creation of a Flexibility Massive Market. Thanks to the DSO's investments in the new Customer smart Meter and data systems, each Point Of Delivery (POD) is potentially enabled to access the Flexibility Market.

- Removal of the entry barriers. Thanks to the Platone architecture, the DSO implements
 all the necessary investments in measurement and telecommunication technologies to
 enable customers to participate to the flexibility market. Aggregators are no longer
 charged with those costs, and this makes easy for them to access the market.
- Availability of Certified Measures. In similarity with current national measurement service and its extension, the Aggregator, the customers and DSOs will receive all the flexibility measures (up to 4 sec.), certified by the BlockChain and therefore immediately available for settlement of flexibility service.
- **Easy Switching between Aggregators.** The Shared Customer Database enables the clients to switch between different aggregators with no needs of further investments.
- Liquidity and impartiality of the market. The DSO is enabled like the TSO to request (locally) flexibility resources; this increases liquidity of the market, since the DSO requests are added to TSO ones through the Market Place.

2.5.2 Technological Innovations

The technological innovations provided by the Italian Demo are reported below:

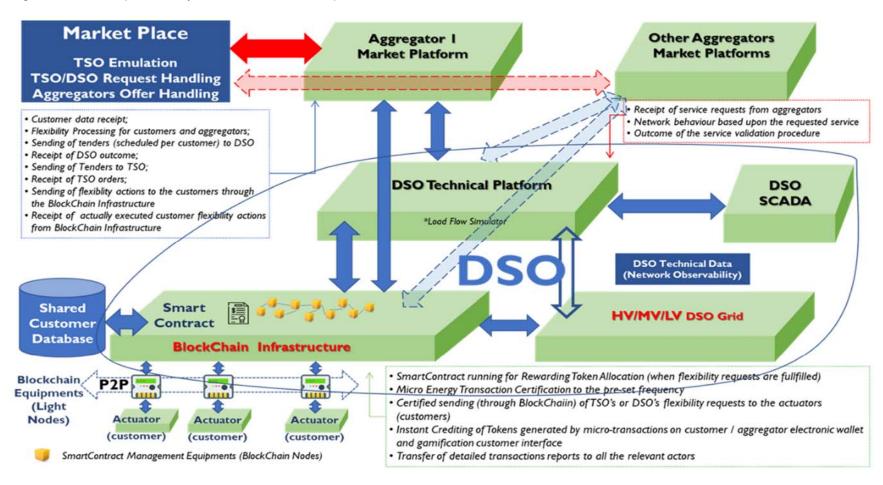


Figure 7 The WP3 solution from the Technological innovation point of view

• Customer Access Infrastructure. The DSO makes available to the market a «BlockChain Certified» layer from / to the Customer that measures consumption and flexibility actions, the Set-Points negotiated with the markets and the "OK" for the flexibility actions.

- Shared Customer Database. The DSO makes available to the market the complete register of measures, flexibility requests from Aggregators to Customers, "OK" "NOT OK" for the flexibility actions and related re-contracts, eliminating billing disputes and measures reconciliations.
- **DSO Technical Platform**. An innovative DMS that interacts with SCADA and GIS to process network states in real time; resolves congestion through reconfigurations and / or requests for flexibility to the local market; accepts or amends the requests for flexibility from the aggregators; sends the "OK" to the Customer Access Platform.
- **Aggregator Platform.** It offers on the Marketplace the resources of its Aggregated Customers. It deals with the DSO the Set-Points on the single PODs.
- Market Place Platform (to be implemented by Engineering within WP2). It collects the TSO
 and DSO flexibility requests and manages their deployment to the available Aggregators,
 regulating the financial items using the measures of the Shared Customer Database.

2.5.3 Subsystems development ownerships

The figure below represents the distribution of ownerships within the WP3 partnership, concerning the development of each subsystem:

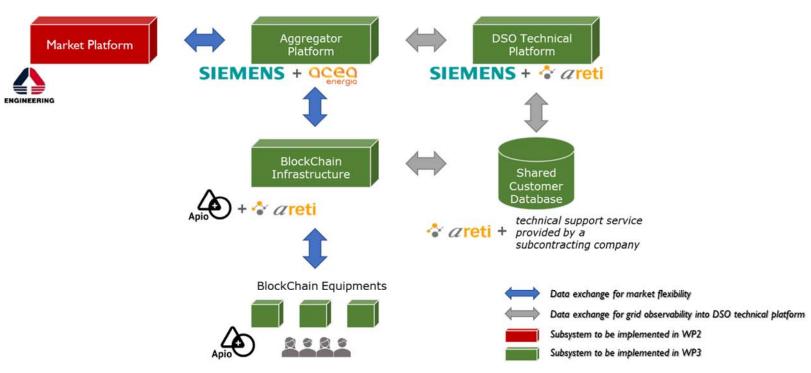


Figure 8 Distribution of ownerships concerning the development of the subsystems

2.6 Timeline, deliverables and milestones

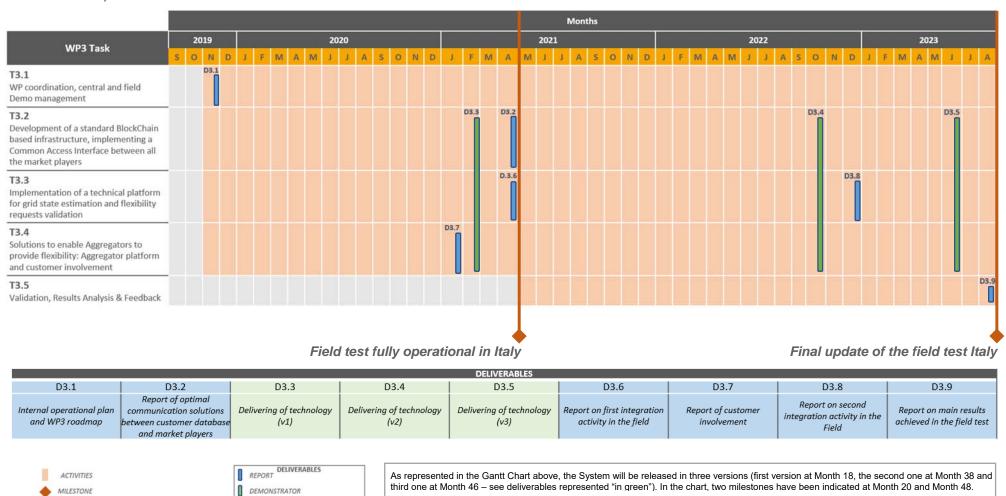


Figure 9 WP3 timeline, deliverables and milestones

3. WP3 Team

3.1 The main project staff for WP 3

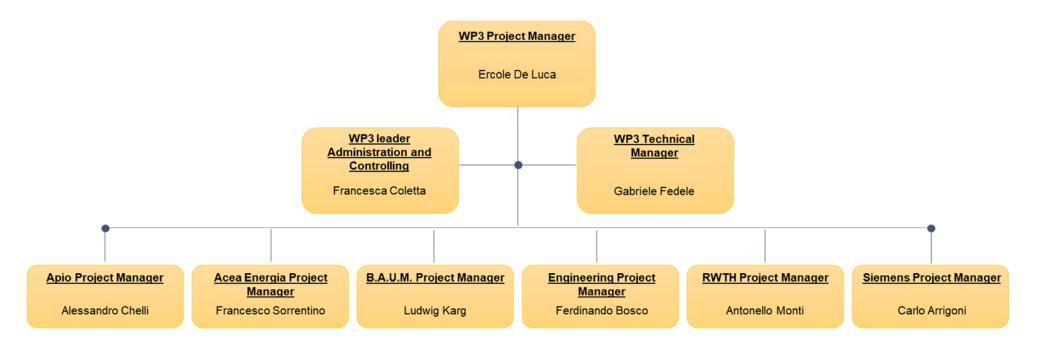


Figure 10 WP3 main accountable project staff

4. Action Plan

4.1 Input-output tasks dependencies related to WP3

According to the input-output task dependencies represented in D9.3 "Project management Plan (version 1)" elaborated under the coordination of the Project coordinator (RWTH), the WP3 tasks will be implemented in coherence with and based on the logical/chronological relationships with other projects tasks, as represented below:

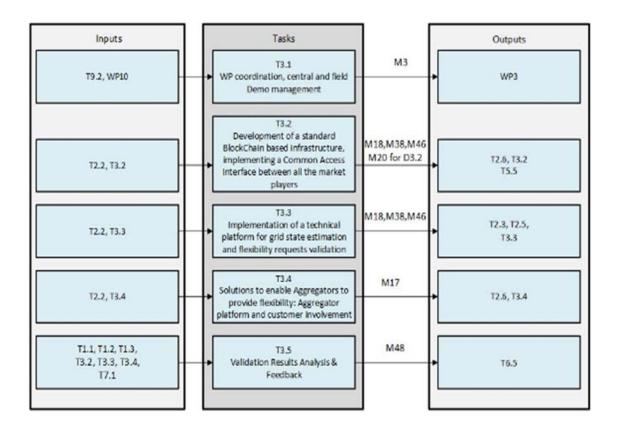


Figure 11 Relationships between WP 3 tasks and other projects tasks

- T3.1 performs the WP3 management.
- **T3.2** develops a subsystem with a standard BlockChain based infrastructure, implementing a Common Access Interface to give all market players an access layer to customers' building automation.
- **T3.3** develops a subsystem for a DSO Technical Platform which works as the link between customers, aggregators, and marketplaces, allowing the DSO's grid to react to specific market signals.
- **T3.4** develops a subsystem for an Aggregator Platform to enable Aggregators to provide flexibility on the market.
- **T3.5** evaluates the effectiveness of the Italian pilot.

4.2 Action Plan for the first release of technology

In order to make all the steps needed for delivering the WP3 Technology at month 18 in a first version, the following Action Plan has been drawn-up to trace the operating roadmap for the implementation of the specific tasks planned within the WP3.

Operating steps	Starting month	End month	Leader	Partner involved	Notes
WP3 Kick-off and start-up of the activities	2-3	3	areti	all the WP3 partners	Sharing of technical and operating directions among WP3 partners
Electrical Characterization of the demo's area	3	4	areti		Definition of the grid topology and of the substations involved in the demo
"Flexibility" Clustering of the users in the demo's area (as preliminary analysis)	3	4	areti Acea Energia		Clustering of customers and definition of the potential flexibility of the area
Customer Engagement strategy, planning and Workshops organisation	3	17	Acea Energia	<i>a</i> reti and B.A.U.M.	Planning of the customer- engagement strategy and definition of the first workshop to be held in the first semester 2020
Development of the HW and SW Blockchain nodes and platform (for retail and business users)	3	18	Apio	areti and Acea Energia	The BC node will be developed for LV and MV users (under the needed authorization)
Development and implementation of Technical DSO Platform	lementation of hnical DSO 3 18 Siem		Siemens	areti	Integration of DSO platform with the system already in use in areti
Development of the Shared Customer Database	6	18	areti	third company in sub- contracting	

Development of the Aggregator Platform	3	18	Siemens	Engineering, Acea Energia	
Instance creation for the Market Platform	6	18	Engineering	<i>a</i> reti, Acea Energia	Simulate a wholesale and local market flexibility compliant with the Italian Regulation
Definition of Communication Protocols	3	18	Apio	Siemens, areti, Engineering, Acea Energia	Definition of the Communication Protocols and of the Communication Channels
Delivery of the entire WP3 System in a first version and making the entire set of functionalities operational	18	20	<i>a</i> reti	All the WP3 partners	
Activation and implementation of the use cases to operate in connection with the WP3 System	20	26	<i>a</i> reti	All the WP3 partners	
Debugging of functionalities and subsystems and implementation activities	26	32	<i>a</i> reti, Apio, Siemens, Engineering	Acea Energia	
Assessment of project KPIs defined in WP1	32	38	<i>a</i> reti	Apio, Siemens, Engineering and Acea Energia	
Delivery of the entire WP3 System in a second version		38	<i>a</i> reti	All the WP3 partners	
Debugging of functionalities and subsystems and implementation activities, for the release of the entire WP3 System in a final version	38	44	<i>a</i> reti, Apio, Siemens, Engineering	Acea Energia	
Final definition of project KPIs	44	48	<i>a</i> reti	Apio, Siemens,	

				Engineering and Acea Energia	
Validation, results analysis and feedback	21	48	<i>a</i> reti	All the WP3 partners	

5. Coordination, evaluation and monitoring



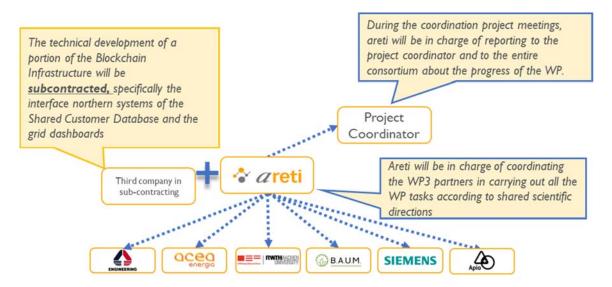


Figure 12 WP 3 partners' effort and coordination and monitoring modus operandi

Coordination

External coordination with the Project coordinator. areti, as WP3 leader, will participate in the PMT Skype meetings with all the WPs leaders, for the management and planning of the project activities (1/month).

Internal coordination of administrative and financial aspects within WP3. Within Task 3.1 (WP3 Coordination and monitoring), the project and financial managers from each WP3 partner will attend periodic coordination meeting for ensuring proper management of the administrative and financial issues (1/month).

Internal coordination of technical activities. Within Task 3.1 (WP3 Coordination and monitoring), the representatives of the technical staff of each WP3 partner will participate in periodic Technical meetings – face-to-face or via Skype (1/month).

Excepting specific needs, the Internal coordination meetings concerning Administrative and Financial Aspects will take place in conjunction with the Internal meetings for planning technical tasks. In the same occasion, monitoring checkpoints will be carried out too, concerning the activities already implemented or in phase of implementation.

Monitoring

Continuous monitoring of WP3 progress. Within Task 3.1 (WP3 Coordination and monitoring), areti, in cooperation with all the other WP3 partners' project and financial managers, will carry out continuous monitoring of the state-of-the-art of administrative and financial requirements related to the WP3 implementation (e.g. monthly timesheets fulfilment, collection of administrative docs for the financial reporting, internal to each partner etc.). Dedicated checkpoint meetings (1/month) will be held to monitor the distribution of effort during the implementation phases of the WP3.

Continuous monitoring of the implementation of technical staff. Within Task 3.1 (WP3 Coordination and monitoring), project managers from WP3 partners and representatives of technical staff will participate in periodical Technical meetings – Face-to-Face or via Skype – for monitoring the implemented activities, sharing possible problems/bottlenecks identified and defining measures for risks mitigations and prevention (1/month).

Monitoring checkpoints will be held in the occasion of the internal coordination/technical meetings.

Evaluation

Scientific evaluation of tasks implemented, and results achieved. In order to ensure maximum scientific value of the solution developed, results achieved during the implementation of the Italian Demo will be constantly shared with the other partners for mutual evaluation according to the strategy defined.

Global evaluation of the results will be run by proper Platone WP in the phases of KPIs evaluation, scalability and replicability.

6. Customer-engagement strategy

6.1 Customer-engagement and awareness-raising workshops

Moving from the types of users identified by BAUM during the "Capacity-building Workshop" (see the figure below) held in Berlin last November 5th, 2019, Acea Energia (leader of T3.4 "Customer-engagement techniques") has identified in cooperation with *a*reti the following users to which customer-engagement and awareness-raising actions will be addressed: Commercial Prosumers; Residential Prosumers; Residential Consumers.

The following planning has been defined for the organisation and realisation of Customer-engagement and awareness-raising Workshops:

Workshop	Kick-off Workshop addressed to Commercial Prosumers	Customer-engagement Workshop addressed to Residential Prosumers (B2C)	Third Workshop: Awareness- raising of Residential Consumers
Objectives	The first customer-engagement workshop held in Italy will be aimed at involving Commercial prosumers in the execution and implementation of the Italian Pilot, in order to start testing the technological solution developed and undertake dedicated flexibility analysis on commercial prosumers participating in the Pilot. The direct involvement of this target group will allow the WP3 partnership (with the support provided by Acea Energia) to design possible scenarios and give evidence of the benefits deriving from the solution for commercial prosumers, also in economic terms, to be later shared with sector stakeholders, new commercial prosumers and residential prosumers.	The second workshop held in Italy will be aimed at involving Residential prosumers in the execution and implementation of the Italian Pilot, in order to test the technological solution developed and undertake dedicated flexibility analysis on residential prosumers participating in the Pilot. The direct involvement of this target group will allow the WP3 partnership (with the support provided by Acea Energia) to design possible scenarios and give evidence of the benefits deriving from the solution for residential prosumers, also in economic terms, to be later shared with sector stakeholders, new residential prosumers and residential consumers, in order to expand the community of users potentially interested in approaching the solution	The third workshop held in Italy will be aimed at sharing among residential consumers the first analysis carried out and related results obtained from the implementation of the pilot use cases (which will be made executive and managed starting from month 20 when the WP3 framework system will be released). The workshop will have the objective to raise residential consumers awareness of the solution proposed by the Platone project, the Italian Demo and related benefits and advantaged. Scenarios, analysis of specific data (e.g. wallet checks / cryptocurrency etc.) and reports already elaborated concerning the experience of Prosumers involved in the pilot, will be shared during the workshop. Dedicated information materials will be prepared with this specific aim.
When	1st semester 2020 (indicatively on April 2020)	2nd semester 2020 (indicatively on November 2020)	June 2021

Where	Rome	Rome	Rome
Target Group	Acea ATO 2 / Cogeneration Plant of Tor di Valle ENEA Smart building Casaccia areti Produzione Areti's Electric Vehicle Pool Site Other commercial prosumers engaged in the territory by areti.	Citizen Energy Community handled by the Research Agency ENEA Other stakeholders engaged in the territory by areti and Acea Energia, through dedicated promotion campaign	Residential consumers engaged in the territory, through dedicated promotion and communication campaigns designed and promoted by Acea Energia. Residential consumers will also be involved as target group of consumptions analysis implemented by Acea Energia, with the aim of trying to detect possible consumptions optimization paths

A detailed view of the first Customer-engagement Workshop to be held in Rome (target group: Commercial prosumers)

Goal(s)	The first users interaction workshop held in Italy will be aimed at promoting and presenting the innovation provided by the Italian Demo Framework solution among Commercial prosumers, in order to later engage them in the execution and implementation of the Italian Pilot use cases, testing the technological solution developed within WP3 and undertake dedicated flexibility analysis on commercial prosumers participating in the Pilot.
Artifacts/services	The innovation and customer-engagement workshop will be focused on: PlatOne project's aims and purposes / Italian Demo aims and WP3 Framework Architecture Scenarios and use cases (expected benefits / economic benefits deriving from the solution proposed) Methodologies for flexibility analysis on commercial customers Pilot testing phase presentation Reporting of specific needs by commercial prosumers (interviews, surveys etc.) and joint development of "prototype" solutions
Users	Commercial prosumers, specifically: • Acea ATO 2 / Cogeneration Plant of Tor di Valle: an High Efficiency Cogeneration Plant, serving a huge Waste Water Treatment Plant - "Depuratore Roma Sud" (1,1 M served inhabitants, 35 GWh/Year) and closer houses with District Heating • ENEA Smart building Casaccia, an office building equipped with the most advanced technologies in building automation and sustainable use and production of energy • areti Produzione • Areti's Electric Vehicle Pool Site, serving a fleet of 40 EV Cars equipped with Charging Stations, 20 kW of photovoltaic production and 130 kWh of Storage • Other commercial prosumers engaged in the territory by areti through dedicated networking activities
Place	Rome
Time	Within the first semester 2020 (indicatively on April 2020)
To check	Follow-up steps and formalization of the involvement of addressed commercial prosumers in the Italian Pilot
WS format?	User centric User centric

7. Communication, exploitation and dissemination strategy

Communication, exploitation and dissemination activities concerning the Italian Demo will be planned and implemented according to the overall project Communication and dissemination strategy defined by B.A.U.M. in D8.1 "Platone Communication and Dissemination Strategy". Concerning the communication and dissemination of results obtained in the Italian Demo, all the dedicated activities will be designed and carried out under the coordination and supervision of the Department of Communication and External Relations of the Acea Group.

8. Ethical issues

With reference to the ethical project-related aspects, all the employees/professionals involved as project staff for the implementation of the WP3 tasks, will be made aware of the Ethics requirements, according to Chapter 5 of the project enclosed in the Grant Agreement.

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Table	1:	Physica	al Indic	cators:	Plants	and	Overhea	id and	Undergro	ound	Distributi	on Li	nes	(2014)	1-201	6)
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10. List of Figures

Figure 1: Framework Architecture: the two-layer platform Figure 2: The WP3 Partnership	
Figure 4: WP3 partners' roles	10
Figure 5: Partners' responsibilities within WP3	11
Figure 6 The WP3 solution from the market innovation point of view	14
Figure 7 The WP3 solution from the Technological innovation point of view	16
Figure 8 Distribution of ownerships concerning the development of the subsystems	18
Figure 9 WP3 timeline, deliverables and milestones	19
Figure 10 WP3 main accountable project staff	20
Figure 11 Relationships between WP 3 tasks and other projects tasks	21
Figure 12 WP 3 partners' effort and coordination and monitoring modus operandi	25